Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Advanced Methods to Target and Eliminate Unlawful Robocalls	)	CG Docket No. 17-59
	)	
	)	
Call Authentication Trust Anchor	)	WC Docket No. 17-97

COMMENTS OF TRANSNEXUS

TransNexus submits these comments in response to the Commission's request for comments on proposed rules for gateway providers to apply STIR/SHAKEN caller ID authentication and perform robocall mitigation on foreign-originated calls with U.S. calling numbers.[1]

We fully support the Commission's efforts to make robocall mitigation and call authentication more effective. We offer the following comments as improvements to the FNPRM that would close loopholes that bad actors could exploit.

THE COMMISSION SHOULD PHASE OUT THE NON-IP SHAKEN EXTENSION

The FNPRM asks whether gateway providers relying on non-IP network technology be fully exempt from any obligation to perform SHAKEN, or should they be required to implement a non-IP caller ID authentication solution, such as Out-of-Band STIR.[2]

The non-IP extension provides a loophole that bad actors could exploit to evade the SHAKEN requirement. While many gateway providers do not currently use non-IP network technology or interconnections, leaving this extension in place would give them a powerful

1 *See* Fifth Further Notice of Proposed Rulemaking in CG Docket No. 17-59 & Fourth Further Notice of Proposed Rulemaking in WC Docket No. 17-97, FCC 21-105, hereafter referred to as "FNPRM."
2 FNPRM, ¶46.

incentive to do so. Furthermore, gateway providers that use non-IP network technology or interconnections, and that might be inclined to look the other way while transiting illegal robocall traffic, would become a preferred route for illegal robocalls.

We've been watching the percentage of signed calls our service provider customers receive. In recent months, this figure has settled at around 24%.[3] SHAKEN participation has stalled at a low number, and the non-IP extension is a significant reason why.

The non-IP SHAKEN extension incentivizes the use of non-IP technology and interconnections, delays SHAKEN adoption, and undermines efforts to foster widespread use of call authentication and robocall mitigation to combat illegal robocalls.

NON-IP SHAKEN METHODS ARE READY FOR SERVICE

Non-IP SHAKEN methods have been standardized [4] and are commercially available. TransNexus offers both hosted and on-premises SHAKEN solutions, which include an Out-of-Band SHAKEN and Call Placement Service capabilities.[5] The TransNexus Call Placement Service is also available for any SHAKEN authorized service provider to use with any other SHAKEN system free of charge.[6] We currently have over 50 providers using the Out-of-Band capabilities in our SHAKEN solutions. NetNumber offers an Out-of-Band SHAKEN solution that includes a Call Placement Service.[7] Neustar has stated that they are exploring ways to enable STIR/SHAKEN in TDM local networks and ways to bypass TDM tandems from the

[3] *See* SHAKEN statistics for November 2021 at https://transnexus.com/blog/2021/shaken-stats-november/.
[4] *See* ATIS Addresses Non-IP Call Authentication, at https://www.atis.org/press-releases/atis-addresses-non-ip-call-authentication/.
[5] *See* TransNexus STIR/SHAKEN at https://transnexus.com/shaken/.
[6] *See* TransNexus Call Placement Service at https://cps.transnexus.com/.
[7] *See* NetNumber Guaranteed Caller TDM-SHAKEN at https://www.netnumber.com/services/guaranteed-caller/guaranteed-caller-tdm-shaken/.

STIR/SHAKEN signaling flow.[8] We anticipate that other SHAKEN solution providers will quickly add Out-of-Band SHAKEN to their SHAKEN software once the Commission issues a ruling that the non-IP extension is being phased out.

Out-of-Band SHAKEN [9] is described in ATIS-1000096.[10] It builds upon the standard SHAKEN framework with the addition of a method to exchange STI PASSporTs around non-IP barriers along the call path using a Call Placement Service network.

There's another non-IP SHAKEN method available, Extending STIR/SHAKEN Over TDM, which is described in ATIS-1000095.[11] It provides a way to relay the SHAKEN attestation level in TDM signaling to preserve this information while a call transits non-IP segments along the call path. At the other end of a non-IP barrier, a provider would create a new PASSporT for the call using the attestation level carried in TDM signaling.

Providers that rely on non-IP network technology or interconnections have choices to perform SHAKEN on their calls. They can use either, or both, of these methods as they see fit, or they could replace non-IP components with IP. Meanwhile, all-IP providers can continue to use their current SHAKEN system as is. The non-IP methods don't require any action by providers that don't use TDM network technology or interconnections.

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[8] *See* Reply Comments Of Neustar, Inc., February 28, 2021, at https://ecfsapi.fcc.gov/file/10228718113969/Reply%20Comments%20of%20Neustar%2C%20Inc%20(2-28-20).pdf.

[9] "Out-of-Band SHAKEN" is a short name for the standard described in ATIS-1000096, Out-of-Band PASSporT Transmission Involving TDM Networks. A broader predecessor framework is named "Out-of-Band STIR" in IETF documents, such as https://datatracker.ietf.org/doc/html/rfc8816. In our comments, we are referring to Out-of-Band SHAKEN and ATIS-100096.

[10] *See* ATIS-1000096, Signature-based Handling of Asserted information using toKENs (SHAKEN): Out-of-Band PASSporT Transmission Involving TDM Networks, at https://access.atis.org/apps/group_public/download.php/60535/ATIS-1000096.pdf.

[11] *See* ATIS-1000095, Extending STIR/SHAKEN over TDM, at https://access.atis.org/apps/group_public/download.php/60331/ATIS-1000095.pdf.

SHAKEN for TDM standards have been approved. Solutions using these methods are commercially available and implementable. It's time to move forward. The Commission should begin the process of phasing out the non-IP extension. This process should begin for all providers, including gateway providers.

Respectfully submitted
/s/ Jim Dalton
Jim Dalton
Chief Executive Officer
TransNexus